News & Views

A Newsletter Dedicated To Information Technology In The State Of Montana

Information Services Division

Agency Spotlight

Enterprise Creates New Budget Development and Implementation System

Old computer systems were created over fifteen years ago to process the state budget. These old systems will soon be history. If you are familiar with the terms EPP (Executive Planning Process), EBS (Executive Budget System), LBS (Legislative Budget System), turn-around, B212/214, LAS (Legislative Appropriation System) or RES (Revenue Estimation System) you will soon be making your acquaintance with the new Oracle-based "Budget Development and Implementation System."

The Governor's Office of Budget and Program Planning (OBPP) has been working with the Legislative

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Finance Division (LFD) in the Legislative Branch and several units in ISD to plan this new system on a very tight time-line. We expect to have the new system in production this fall. **Starting August 1 all budget activity will be on the new system.** This implementation date comes after the major activity concerning EPP submissions, but it will allow us to start with base data from FY96 SBAS and then continue exclusively with online budget modifications. (The EPP process is a part of the over-all design, but it will not be available this

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What's Inside

Calendar of Events

April 1-3:
- Montana GIS 1996 Conference, Holiday Inn Parkside and University of Montana Campus, Missoula

April 3:
- ITMG, 8:30-10:30, Metcalf 111

April 4:
- Public Safety Communications, 1:00-3:30, Capitol 312-2

April 5:
- MOPUG, 1:00-4:00, Mitchell 13A & 13B

April 9:
- ITAC, 8:30-11:30, Metcalf 111

April 12:
- GIS Seminar, 12:00-1:00 Brown Bagger, Montana State Library Conference Room 208 (see sidebar)

April 16:
- SEC, 9:30-11:30, DPHHS Auditorium

April 17:
- ISPG, 1:00-3:00, Montana State Library Conference Room 208

April 18:
- Term Contract Vendor Trade Show, 10:00-4:00, Helena College of Technology Room 218 (for more info., call Brett Boutin (444-0515))

April 19:
- Governor's Blue Ribbon Task Force, 10:00-4:00, Capitol 104

April 26:
- GIS Seminar, 3:00-5:00, Montana State Library Conference Room 208

May 1:
- ITMG, 8:30-10:30, Metcalf 111

May 2:
- Public Safety Communications, 1:00-3:30

May 3:
- MOPUG, 1:00-4:00, Mitchell 13A & 13B

May 7:
- ITAC, 8:30-11:30, Metcalf 111

May 15:
- ISPG, 1:00-3:00, Montana State Library Conference Room 208

May 17:
- Governor's Blue Ribbon Task Force, 10:00-4:00, Capitol 104
- GIS Seminar, 3:00-5:00, Montana State Library Conference Room 208

May 21:
- SEC, 9:30-11:30, Mitchell 160 or DPHHS Auditorium (METNET)

May 27:
- Memorial Day Holiday

June 23-28:
- GPS/GIS '96 Conference, Yellowstone National Park and Billings

budget cycle.)

This fast schedule is only possible because of the infrastructure and support provided by ISD. We started by using the term contracts available for MIS Service Providers that were bid and negotiated by Brett Boutin of Computing, Policy & Development. The availability of these contracts saved all the time of going through the bid process ourselves, but we had the flexibility of selecting from among several contractors. We contacted and interviewed all five qualifying contractors after reading the bids they had submitted to Brett. Based on those interviews we received proposals from four of the five providers. We selected Seltmann, Cobb and Bryant, Inc. based on their capabilities for this project. The first phone call was December 13, and we were ready with a work order for the requirements definition phase of this project by January 18. The first phase of the project, analysis

Additional IT Meeting Information

A *"Directory of Information Technology Meetings"* which contains additional Information Technology meeting information may be obtained from the Value Added Server (GUEST\ITACINFO\MEETING.W60 or GUEST\ITMGINFO\MEETING.W60), the State Bulletin Board System (Agency / Administration / Information Services / Files / Advisory Groups / MEETING.ZIP) or by calling ISD (444-2700)."

and requirements definition, was completed at the end of February and we now have a work order in place for full system development. Pieces of the new system will be available for data loading and training starting this July!

GIS Seminars

Each seminar will be held in the Montana State Library Conference Room 208 from 3:00-5:00, unless otherwise specified. For more information, contact Kris Larson (444-5691 or via the Internet at klarson@nris.msl.mt.gov).

April 12 - Roly Redmond, University of Montana, School of Forestry, *Mapping Existing Vegetation and Land Cover Across Large Geographic Areas Using Remote Sensing and a GIS.* This presentation will describe general methods and results from the GAP Analysis project in western Montana. Roly will also discuss how the findings and techniques can be applied to other projects. Please note that this presentation is scheduled for a NOON Brown Bagger from 12:00-1:00.

April 26 - Stu Kirkpatrick, Butte Silver Bow Planning Department, *The Montana Local Government GIS Coalition - Have We Got a Deal For You!* Want good quality, cheap data? Sure you do! Then investigate the cost sharing possibilities of data collection with the nearest local government in your study area. The Montana Local Government GIS Coalition has been incorporated to promote state-wide database standardization and cost sharing between federal and state agencies and local governments. This seminar will describe the general mission of the Local Government GIS Coalition, examine some successful federal/state/local partnerships, and investigate the possibilities of future cost share projects.

May 17 - Larry Swanson, Center for the Rocky Mountain West, *Placing Economic Data into a Geographic Context.* GIS is being increasingly looked to as a tool in organizing and displaying information of many types; including economic and social data. Dr. Swanson will discuss a framework for identifying and evaluating regional economies referred to as the Regional Economies Assessment Database, or READ, and the READ system's use of GIS tools and applications.

One requirement we imposed was that the whole project should be developed using Oracle tools, specifically, Designer 2000 and Developer 2000. Fortunately, Gary Poepping, Tony Noble and Dave Howse of Systems Development Support were able to provide a test database server with those tools available for our contractor. Network connections from offices in the Capitol to that server and to the plotter in the Mitchell Building were quite routine. Tim Peterson, one of our partners in the Legislative Branch, provided all the support in that area. Carl Hotvedt of the Telecommunications Operations Bureau is planning the network modifications to allow for the additional network traffic that will be generated by the production system. For testing, training and production we expect to use a new mid-range,

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database server with full operational support provided by Paul Rylander and his staff in the Computing Operations Bureau. The initial projects for this server will include this joint budget project and new database projects in the Secretary of State's Office. There is enough capacity on this production server to allow for new Oracle projects developed by other agencies in the near future. We expect the production server to be in place by June 1 to allow for software installation and testing; initial agency training will occur in July.

Security on this new system will allow everyone to do their work when they need to do it. OBPP will provide

system loads, agencies will make initial modifications, OBPP will finalize the Executive Budget version and LFD will make all the iterations of Legislative modifications. The system will be ready for all the modifications and approvals associated with budget implementation on SBAS and P/P/P. This will be an "enterprise" system fully utilizing the Oracle, Novell and SummitNet enterprise capabilities.

New Functionality for Budget Development and Legislative Action

EPP Requests
Agencies will prepare EPP requests. Then OBPP analysts will perform the EPP review cycle during which agencies and the LFD will be able to "read" requests. The disposition of each EPP item will be recorded by the push of "Approved", "Disapproved" or "Pending" buttons. The approved EPP items will be merged into the budget files downstream. Requests involving FTE will force the creation of FTE attribute records through screen input.

Budget Development
All modifications throughout the cycle will be "online" using a set of shared database tables. Special database functionality will be provided for **FTE Crossover, FTE Maintenance, Expenditure Funding, Agency and Program Descriptions/Goals and Objectives, Performance Based Programs, One-Time-Only Appropriations** and **Fixed Costs.**

Control Variables
Users will be able to dynamically assign responsibility centers and positions to control variables. The system will assist in the maintenance of the control variable and budget system ICC files.

Pay Plan
Modules will be included in the system that provide for pay plan costing and funding, based on a personal services funding allocation table.

New Legislative Action Features
New functionality will include the ability to track both **House Bill 2** and **cat and dog bills** (bills with appropriations that are not in House Bill 2), the ability to track **one-time-only appropriations** and the ability to maintain separate versions of all appropriations throughout legislative action.

New Functionality for Budget Implementation

Automated Turnaround Processing
Appropriation, Revenue Estimate, Operating Plan and Pay Plan turnaround processes will be automated. Significant error trapping/checks will be built into the system. With the direct inclusion of bill numbers and pay plan amounts, it should be possible to have only one turnaround. The system will be able to accept and maintain agency program budgets for both years of a biennium. An audit trail will be provided within the database.

Online B212s and 214Rs
The system will be used to maintain appropriations, revenue estimates and operating plans throughout the biennium. The "current" information about each appropriation will always be available for reference. Approval rules will be designed so that many changes can be automatically approved and used to update SBAS without manual intervention. The approval rules will include considerations for **SB32 carry forward authority** which was made permanent last session.

Agency input will be requested as we proceed. A more detailed explanation of features is available from the Budget Office (444-3616). Also, let us know if you have an appropriate acronym for this new system. ∎

*Steve Colberg (444-4101)
Governor's Office of Budget and Program Planning*

SummitNet

SummitNet Physical Design Adopted By SEC

After considerable effort by the staff of ISD and the University System, an initial design for SummitNet has been adopted by the SummitNet Executive Council. Design characteristics may, and likely will, change over time as the network evolves.

SummitNet will utilize a core backbone infrastructure using Cisco routers, frame relay and private line services to build the backbone. The backbone will serve the collective needs of education and state government using aggregation routers located within one of four regions.

The core network will consist of dedicated T-1 circuits connecting large packet switches in Bozeman, Billings, Missoula and Helena. The core will be the backbone transport for all traffic between the different regions. Regional routers are attached to the backbone and will aggregate the traffic within each region based on IP addressing requirements. State agencies (non-education) and non-profit organizations will be connected to the government regional router, while educational institutions and libraries will be connected to the education regional router.

Regional aggregation sites will be located in Billings, Bozeman, Helena, and Missoula.   The function of the regional aggregation sites will be to separate government traffic from educational traffic. The core and regional sites in each of these cities will be chosen very carefully based on 24 hour access, environmental and power conditioning requirements. It is anticipated that these sites will be a combination of University and law enforcement locations.

Area Routers will be placed in Billings, Bozeman, Miles City, Glendive, Helena, Great Falls, Havre, Missoula, Kalispell and Butte to terminate educational institutions throughout the state. This configuration provides the means to terminate local school districts within an area. This will facilitate the communication between local schools without having to traverse the regional or core backbones.

The initial implementation on the core backbone will use dedicated T-1 leased services between each of the core routers. The core will be configured to provide alternate routes across the network to minimize the potential for network outages. The regional routers will be LAN connected to the core routers in order to scale bandwidth as needed to meet future needs. The educational area routers will be connected to the regional routers via frame relay T-1 or LAN connections based on location of the area routers. Additional frame relay T-1 access circuits or private line T-1 circuits will be added as traffic dictates. It is anticipated that higher level bandwidth services such as ATM will be required between aggregation points as bandwidth requirements grow. Current forecasts indicate that ATM services may be required in about 18 months. As application and bandwidth requirements grow, this model provides the opportunity to transition to higher levels of bandwidth and to implement alternate routes on the network where one vendors network provides a single point of failure.

The initial implementation will utilize frame relay services to connect individual sites to the regional networks. The size of the circuit connecting the end node will typically be a 56 Kbps access pipe with 28 Kbps Committed Information Rate (CIR). Where there are multiple users in the same building, the intent is to share router and access facilities in order to meet the collective needs of each user agency.

Questions about SummitNet may be directed to Carl Hotvedt (444-1780) from the Telecommunications Operations Bureau. ∎
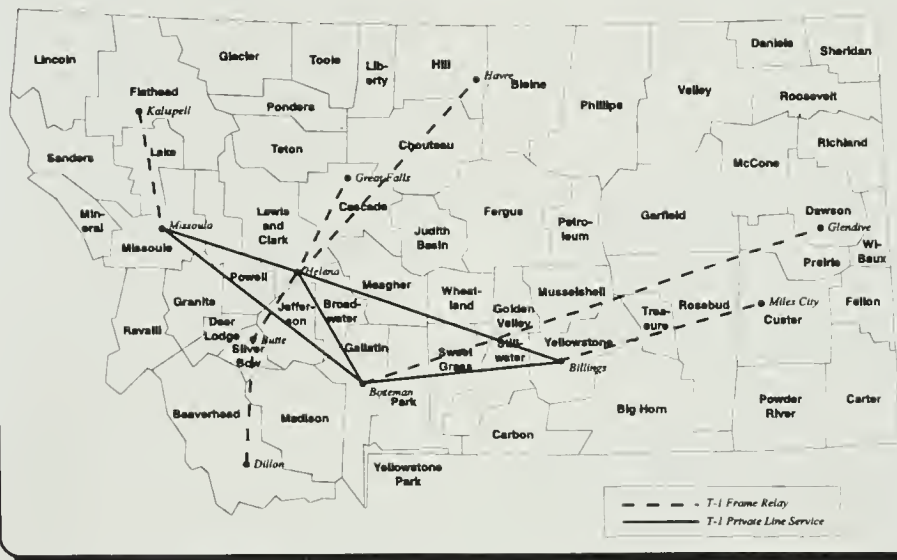

SummitNet Physical Network Map

Figure 1: SummitNet Physical Network Map

DIAL 9-1-1

EMERGENCY HELP

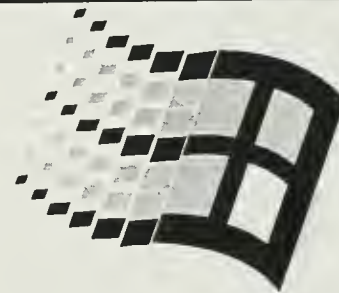## Over 96% Of the State Has 9-1-1 Coverage

By mid-April 1996, Custer and Garfield Counties will be added to the list of areas with 9-1-1 emergency telephone service available. At this juncture, 96.3% of the state's population will have access to state approved 9-1-1 emergency telephone service.

The remaining areas of the state without state approved 9-1-1 systems are Valley, Daniels, Sheridan, Roosevelt and Meagher Counties and the Blackfeet and Rocky Boy Reservations. The Blackfeet Reservation and the Glasgow and Wolf Point telephone exchange areas do have 9-1-1 calling capabilities. However, the Department of Administration has not approved these systems for statutory compliance.

The Department of Administration's 9-1-1 Advisory Council is developing a "benchmark" level for 9-1-1 systems throughout the state. Thus far, the "benchmark" includes a recommendation that all 9-1-1 emergency calls be routed over telephone networks that can provide automatic number identification (ANI) of the emergency caller, not "caller ID." The Council is also focusing on recommendations for risk management and the exposure to liability associated with emergency medical dispatch, hiring, training, quality assurance, policies and contractual transfer.

Any questions on 9-1-1 emergency telephone service or the Department of Administration's 9-1-1 Program may be addressed to Larry Petersen (444-2420), 9-1-1 Program Manager. ◪

Status of Windows 95/NT in the Enterprise

The Desktop OS/Network OS subcommittee of the ITMG has a working group testing Windows 95 (Win95) and Windows NT (NT). It is made up of members from multiple agencies and is charged with preparing the state for the implementation of Win95 and/or NT as the desktop operating system within the statewide enterprise. While it is generally agreed that Win95 is a capable platform for home use, and that NT is a powerful, more secure platform, there are questions to be answered yet about how Win95 or NT Workstation will perform within and affect the State's computer enterprise.

Based on current workload priorities, ISD networking staff will begin testing Win95 in a network environment in May 1996. Barring any insurmountable technical problems, a target date of September 1, 1996 has been set for ISD to complete testing, to have staff trained to support Win95, and to develop a migration plan. Some, but not all, of the issues yet to be completely tested and understood are:
- Network security abilities (or lack thereof) in Win95.
- Network traffic loads
- Win95 Palindrome client is not yet available and must be tested successfully before a roll out of Win95 can be considered
- Use of the Win95 policy editor for workstation administration
- Migration strategies and methods

NT Workstation 4.0 is in the
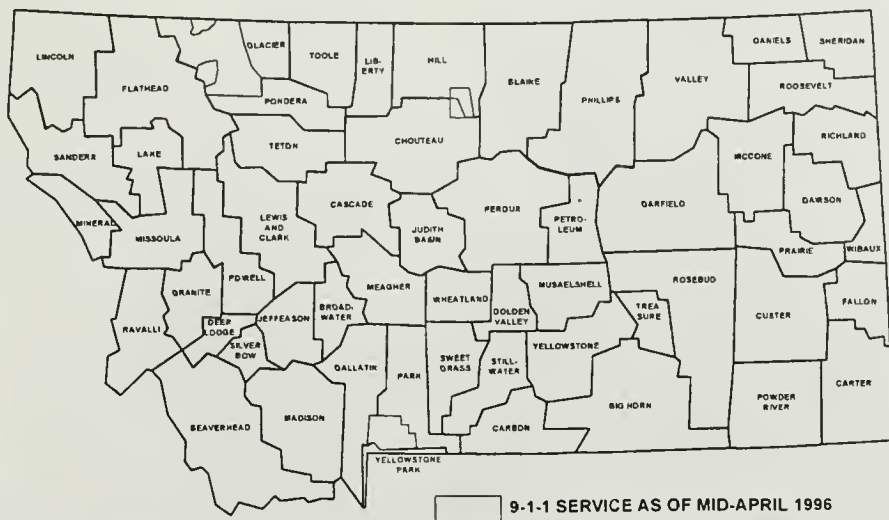
9-1-1 Service Areas in Montana

9-1-1 SERVICE AS OF MID-APRIL 1996

Figure 2: 9-1-1 Service Areas in Montana

beginnings of its beta testing cycle and at this point is not expected to be available for testing by ISD until late summer or early fall.

Please be reminded that Win95 and NT Workstation are not yet accepted as State standard software. At this time only those personnel working with the ITMG Win95/NT test group should be running Win95, and then only in a test environment. Central Stores and all agencies have been asked by the ITMG not to allow purchase or installation of Win95 or NT Workstation on State computers.

Agencies planning to acquire PCs in the interim (prior to acceptance of Win95 as a production operating system) have several options, depending on the PC manufacturer.

1. Order your PCs with DOS and Windows 3.1. This means ordering, paying for, and installing Win95 at a later date.
2. Order your PCs with Win95.
   A. If ordering DELL or IBM PCs, you must remove Win95 from the PC, and load DOS and Windows 3.1 instead. Microsoft allows State users receiving Win95 on a new machine to remove Win95 and install Windows 3.1 instead. This involves an effort of an hour or more, depending on technical expertise. Contact Denny Knapp (444-2072) of End User Systems Support for instructions/guidelines on removing Win95.
   B. If ordering DEC PCs, a Win95 license is shipped with each DEC PC, but the first time the PC is booted, you are given a choice of loading Windows 3.1 or Win95. Thus you can choose Windows 3.1 for now, and load the Win95 license at a later date when it becomes the state standard.

Options 2A and 2B have the advantage of not requiring an additional expenditure of buying a Win95 license when Win95 is accepted as a production operating system.

Agencies who may have inadvertently acquired PCs with Win95 already loaded are being asked to please remove Win95 from the PC and load Windows 3.1 instead, unless you are participants in the ITMG Win95/NT test group. ISD will not be able to provide End User support for desktop application problems on systems which are inadvertently using Win95. In addition, if problems occur on LANs which have Win95 workstations, those workstations may have to be disabled during problem determination.

We will keep you informed of the progress and findings of this group in monthly *ISD News & Views* articles. If you want further information, or want to become involved with the test group, call, ZIP!, or E-Mail Denny Knapp (444-2072 or via the Internet at dknapp@mt.gov) of End User Systems Support. ∎

The Year 2000 Generates Programming Considerations

Does your program use a two-digit year? Have you given any thought to what might happen with your data when the year 2000 rolls around? Does your system use dates in the future? Are the dates that print on your reports 'cosmetic' or do they provide essential information? By now, hopefully, you've given these questions some thought. This article, as well as future articles, will help trigger your thought processes on the **Year 2000** or the **Two-Digit Year Problem**.

Here a few consequences that could occur if you are using a two-digit year in your program:
• Sort sequences on the year field maybe incorrect.
(20)00 sorts before (19)99... not after
• Interval calculation may be incorrect.
(20)00 – (19)98 = -98... not +2
• Dates may be incorrect or ambiguous.
Dates may be made '19yy' unconditionally
01/02/03 = Jan. 1, ??03
• Programs won't allow a date beyond 1999.
• Truncation of a 4-digit year date when saving or using it
• Using certain years as special codes.
'00' means no date available
'99' means keep forever

How do you know if your programs are using a two-digit year? You can scan your source code using ISPF 3.14 or Panvalet (PAN#8 using ++SCAN). You could examine your output data and work backwards through the programs creating the data. Check your data dictionaries or system design specifications.

Now, what do you do to fix this? Here are a couple of suggestions:
• Change all occurrences of YY to YYYY. This requires both program and data to change. It requires all applications using the changed data to change simultaneously.
• Change to encode or compress a 4-digit year into a 2-digit space. Change a character date to a packed date or a decimal date to a hexadecimal date. If the date is in the form MM/DD/YY, change it to MMDDYYYY. This type of modification requires a change to both program and data and requires all applications to change simultaneously.
• Change code to use a *date window* with YY. In this method, you can pick an arbitrary date to base the window around.
Example: Choose 1940. Dates of less than '40' will signify 20YY. Dates larger than 1940 will be 19YY.
Problems with this method are it restricts the program to a 100 year window, the program must know the year you picked to base the date window on and you would have to change this window periodically.

Or use a *sliding date window*. Allow 20 years in to the future from the current system date and 80 years in the past.

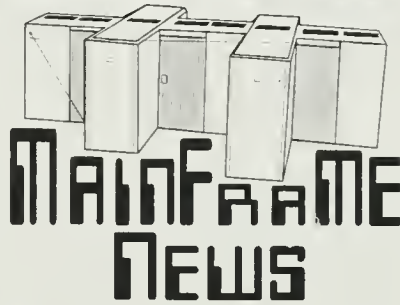Example: If today's date is 1996, then '03' is 2003 and a '50' is 1950.

All programs using the sliding date window technique must make the same assumptions of the date range. Using 'date window' is really only a temporary solution to the two-digit year problem.

IBM software, as well as other vendor software, has begun to support four-digit years. That is, the internal date routines available in compilers will provide you with a four-digit year. Currently, program languages installed on our IBM 821 mainframe which support the four-digit year are: VS FORTRAN V2.6, PL/1 V2.3, COBOL FOR MVS V1.2 and the High Level Assembler V1.0. Omissions from this list are obvious: COBOL II, OS/VS COBOL, FORTRAN V1.4 and Assembler H. The built-in date routines of these software packages only provide a two-digit year. The ISD subroutine, 'DATECVT' does provide a four-digit year. In next month's issue of *ISD News & Views*, there will be an article on new functionality of DATECVT.

A more detailed discussion on this topic can be found in an IBM document titled '*THE YEAR 2000 AND 2-DIGIT DATES: A Guide for Planning and Implementation (manual number GC28-1251)*. It is available from IBM via the IBM S390 Home Page (http://www.s390.ibm.com/) or by request from our IBM representative.

Only you can decide if the dates stored in your data need to be expanded to four-digits or can remain as they are. Remember, this problem can occur on all computing platforms... not just the mainframe.

Questions about operating system software can be referred to Robin Anlian (444-2898) from Operating System Support. Programming questions may be referred to your agency's programming support staff or Glen Stroop (444-2910) from Software Support. ▣

MainFrame News

Mainframe 'Held Output' Policy Modified???

When Technical Services moved the output data (sysout) off of 3380k DASD to 3390 DASD, we discovered many old HELD sysout datasets. In fact, several output datasets dated back to 1993. We would like to propose the automatic deletion of any HELD output data that is over 30 days old. Currently, nonheld output is deleted after 10 days. Class 8 output is deleted in 4 days. Class 9 held output data is released to print after 1 day. Please notify Robin Anlian (444-2898) from Operating System Support if this 30 day limit on HELD output will NOT fit your needs. Otherwise, this new policy will go into effect May 1, 1996. ▣

ITMG Looks At Metering Software

At the March 6, 1996 meeting of the Information Technology Managers (ITMG) Group, the Enterprise

Software Subcommittee stated its intention to research software metering. It is possible that implementation of metering software can result in considerable savings in software licensing fees for the enterprise. If you have questions or concerns about metering software, please contact Steve Colberg (444-4101) chair of the subcommittee.

Complete minutes of the meeting are available on the Value Added Server (GUEST\ITMGINFO), the State Bulletin Board System (Agency / Administration / Information Services / Files / Advisory Groups) or by calling ISD (444-2700). ▣

Creating a WordPerfect Document in Columns

When deciding what format to use the next time you are creating a document in WordPerfect 6.1 consider a columnar format. Columns are easier on the eyes and less boring than a long string of text. It is even said that columns hold people's interest longer. Columns make your document look more professional.

You can create a new document in this fetching format or easily convert an existing document. More than one columnar type may be specified in a document. Position your cursor where the columnar format is to begin,

choose **Format, Columns** from the Menu bar. Next select **Define** to specify the number of columns you wish to have in your document and the **Type** of columns you want to invoke.

Selecting **Type Newspaper** will format your text into what is known as "snaking" columns. The text is typed and read from the top to the bottom of the page or to a column break and then continues on to the next column to the right.

Balanced Newspaper uses that same logic but will make your columns the same length. The difference between the two Newspaper formats will be obvious when you begin to type your text. WordPerfect will begin to balance the appearance of your text with the first line typed.

The next **Type** that may be selected is **Parallel**. You may find this format convenient when typing charts or inventory lists. Text will be grouped across the page in rows. Subsequent rows will begin below the longest column on the previous row. **Parallel w/ Block Protect** creates a similar looking format but will not separate grouped rows if a page break is encountered.

While in the **Define** window you will be able to select several parameters dictating what size your columns are with **Column Spacing** and **Column Width**. Note that these two factors are related and choosing a value for width will determine column spacing and vice versa. The **Fixed** boxes when checked will keep the width of the current column regardless of changes in other columns. The sheet display in the **Define Columns** window is invaluable for getting a picture of what impact your selections are having on the appearance of your document. Columns can also be sized easily by dragging column guides displayed above the ruler bar. As you manipulate those guides the gray space, the space between your columns, also known as gutter space, will be manipulated too.

Regardless of which **Type** of columns you have chosen to use, advancing to the next column is done with a **Ctrl+Enter** or selecting **Column Break** from the **Format, Columns** pull down menu box. The **Off** selection on the same pull down menu will turn columns off. Selecting this option would enable you to return to the typing of straight text.

On the **Format, Columns** menu is an option for **Border/Fill**. Choosing this option allows you to give special emphasis to your columns by boxing and filling them. Bordering applies to your columns until an **Off** is encountered. So if you want more than one all encompassing border and fill in your document, group your columns and separate them with **Off**. Plan ahead if you choose to use this feature because once you have your document in column form it is a little difficult if not impossible to split out a section of a column to border and fill.

For a very sharp looking document try using **Columns** in combination with a Justification of Full. Do you need help with columns or another WordPerfect feature? Call Candace Rutledge (444-2858) from End User Systems Support. ☎

Internet E-Mail: ZIP!Office versus ZIP!Mail

Internet E-Mail Aliasing has been implemented for all ZIP!Mail and ZIP!Office users. The convention used is the first letter of your first name combined with your last name (up to

16 characters) followed by **@mt.gov**. If there is a duplicate, then first letter/second letter of the first name followed by the last name is used. So, if there are two Frank Smith's listed in the Address Book, the Internet E-Mail Alias would be as follows:

Frank Smith (DOA) **fsmith@mt.gov**
Frank Smith (DOT) **frsmith@mt.gov**

If you are Fred Smith, your alias would be manually assigned. To see if there may be a duplicate alias, open the ZIP! Address Book and check to see how many other users have your last name. If in doubt, check with your E-Mail administrator.

Internet E-Mail for ZIP!Mail users

Your Internet E-Mail Address is in the alias format described above. ZIP!Mail users do not have the capability of sending a message in Internet E-Mail; you need to select the ZIP!Mail "Note". Also, ZIP!Mail users *cannot* attach files to send across the Internet.

To address an Internet message, type in the Recipient's Internet E-Mail Address on the first line of the Note field preceded by "MHSTO:MHS:" For example:

MHSTO:MHS:someone@somehost.com

Next, press **Enter** two times to begin your message. (There MUST be a blank line between the address and the body of the message.) Go to Recipients and select "Internet User" from the ZIP! Address Book, and send the mail.

Internet E-Mail using ZIP!Office

ZIP!Office users who have been upgraded to the new Internet Client will notice the greater ease of addressing Internet E-Mail. You now have the capability of keeping your own personal Internet Address Book containing the E-Mail addresses of

Add Internet Address   ☒

Name:	Doe, John
Internet Address:	Someone@somehost.com
Description	

[**A**dd] [**O**K] [Cancel] [**H**elp]

Figure 3: Add Internet Address Window

people you correspond with on the Internet. You no longer need to include the "MHSTO:MHS:" addressing information in the body of the message or select the "Internet User" from the Address Book. To access your Internet Address Book, click on:

File
   Open
   Internet Address **b**ook

To add an entry, Click on

   Edit
   Add Address

or, use the Add Entry Icon (located to the right of the Trash Can icon).

Fill in the recipient's name (last name first is recommended so your Address Book will be in alphabetical order) and the Internet Address. (The **D**escription field is optional.) See Figure 3

To send mail to one of the names in your Internet Address book, compose a message and click on the "Address Book Icon" as you normally would. When the Address Book window is displayed, click on the "Switch Address Book" button in the lower right hand corner. This will display your Internet Address Book. Select a recipient, click OK and then click on the Send Mail icon.

You can send attachments over the Internet. **IMPORTANT**: You must fill in the message field. Leaving it blank causes mail delivery errors. (ANY mail delivery errors should be reported to your E-Mail administrator.)

The table in Figure 4 can be used as a quick reference guide.

If you have any questions regarding Internet E-Mail or aliasing call or ZIP! Sue Skuletich (444-1392), Candace Rutledge (444-2858), or Kyle Wynn (444-2859) all from End User Systems Support. ▣
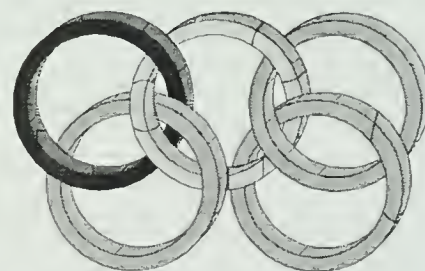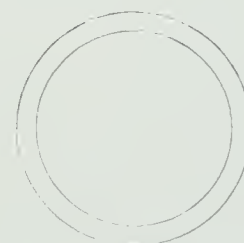

Creating Magic Rings in CorelDRAW! 5.0

Figure 5: Multi-Ring Graphic

Before PowerClips were introduced in version 5 of CorelDRAW!, this multi-ring graphic would have been a very tough effect to create. With PowerClips, it's easy, once you create the first 3D ring.

Figure 6: First Ring

To create the first ring, you must first combine two concentric circles to form the ring face.

Internet E-Mail Features/Functionality

	ZIP!Mail	ZIP!Office
Aliasing	YES	YES
Attachments	NO	YES
Personal Internet Address Book	NO "MHSTO:MHS:" required	YES

Figure 4: Internet E-Mail Features/Functionality

Figure 7: Extruded Ring

Then, simply extrude it and turn on an extrusion light source to create shading. The other rings can be created by duplicating the original and changing the color. The problem is they won't appear to interlock. So, what do you do?
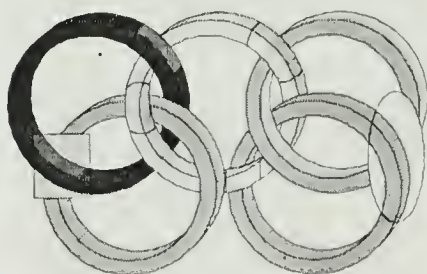

Figure 8: Rings with PowerClips

First, draw a rectangle surrounding the area where the first 3D ring should overlap the second ring. Then simply duplicate the first 3D ring and PowerClip it into the rectangle or oval. To do this, you should turn off the Auto-Centering option for PowerClips and set the duplicate offset to 0 (zero). Do the same thing for the remaining rings, and the result will look something like the drawing in Figure 8.

The final step is to apply no fill and no outline to the rectangles (the PowerClip containers), so they are invisible. Their contents will still be visible, and the result will be the interlocking rings shown in Figure 5.

Stay tuned in next month... Same Corel Channel... Same Corel time... For more exciting Corel Graphics news.

For more information contact Jerry Kozak (444-2907) from End User Systems Support. ▣

LOTUS APPROACH

Using Lotus Approach 'Find' Functions

Lotus Approach uses the query by example method of creating *finds*. Go to the main menu and choose **Browse, Find**. The same form you use for data entry is displayed with blank fields. Enter the criteria you wish to find in each of these blank cells. You can do name searches and range of value searches. For instance, to find all records which are from the dates 12/01/95 through 12/06/96 you would type in 12/01/95..12/06/95 in the date field and press **Enter**.

Approach then displays the *found set*. Until you do an other *find* or choose **Tools, Find All**, Approach will utilize only the records contained within the *found set*. If you wish to do a report, the records which appear on your report will display only those records in the *found set*. The worksheet page will also have the same corresponding set of records which you specified in your *find*. This greatly lessens the need for custom coding to display certain information on your reports. You do not need to do a separate coded *find* for the report. If you do another *find* the new *found set* will now be the information displayed on your new report, worksheet and form. You can also store pre-selected *finds* if a particular found set is regularly needed.
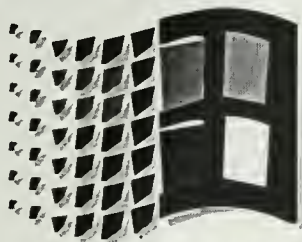
Once you do a "Refresh the Found Set" (a macro command) or **Browse, Find All**, all of the records will be displayed and that information will once again be displayed in your reports, worksheets and forms. If you have any questions regarding this or any other Lotus or Approach procedure, call Brian Divine (444-2791) from End User Systems Support. ▣

Figure 9: Lotus Approach Data Entry and Browse Screen

WINDOWS FREEBIES!

TapeCalc May Be a Better Calculator

TapeCalc © 1995, PC Magazine

Another Windows free utility, courtesy of PC Magazine, is TapeCalc. TapeCalc is a streamlined, modern pocket calculator for Windows, with a simulated paper tape that makes it easy to check your work. Its fixed-point display option is handy for currency calculation, and you can paste calculations to and from the clipboard. Following are excerpts from the TAPECALC.DOC file.

To install TapeCalc, copy TAPECALC.EXE and TAPECALC.HLP into the directory of your choice, and add TapeCalc to the Program Manager group of your choice. TapeCalc requires that VBRUN300.DLL be in your Windows system directory, along with the .VBX controls CMDIALOG.VBX, KEYSTAT.VBX, THREED.VBX, and GRID.VBX.

TapeCalc replaces the standard portion of the Windows calculator CALC.EXE; if you need hyperbolic cosines, standard deviation calculations, and so on, use CALC. For everyday work, TapeCalc is the better choice.

From the **Edit** menu, you can copy all or part of the tape to the clipboard, or copy just the result of the current calculation. You can also paste calculations into TapeCalc. The **View|Options** dialog lets you choose to insert a specified operator between each number.

The tape itself can be hidden, though TapeCalc maintains the tape even when it's not visible. The tape font is under your control as well. All of TapeCalc's user-selectable options are stored in TAPECALC.INI, along with the screen position of TapeCalc itself and its options dialog.

TapeCalc can be used with the mouse or the keyboard, and the buttons depress visibly when the corresponding key is pressed. A NumLock button right on the calculator lets you enable the numeric keypad easily. For help with any button, click on it or press its key and then press F1.

If you would like a copy of TapeCalc, the necessary files are available on the ISD Value Added Server under \GUEST\WINDOWS\WINADDON\ TAPECA, or you may call or ZIP! Denny Knapp (444-2072) of End User Systems Support. ∎

Term Contract Status
Introducing IBM's New Products and Dell's Online Services

ComputerLand of Helena

Call Mike Price (443-3200) for more information.

New Product Announcement: IBM PC 300 Models with Additional Hard Disk Choices
Large-capacity hard disks, now available on PC 300 Pentium-based 100MHz processor models, provide you with additional choices in making configuration decisions. These 100MHz processor models now offer 1.2GB hard disks, as well as the additional choice of a 1.2GB model with a CD-ROM drive pre-installed.

Each PC 300 Pentium-based system provides high-speed, 64-bit PCI graphics performance, allowing you to take advantage of many popular, complex graphics applications. You also get your choice of pre-installed operating systems—DOS with Windows or Windows 95. Additionally, powerful software tools—Easy Tools—help manage desktop computing assets with ease and effectiveness.

If you value high-performance, industry standard platforms—at a great price—to achieve a productivity edge, PC 330 and PC 350 Pentium-based systems are ideal for your general business computing activities.

Features
- High-speed, large-capacity 1.2GB hard disks; up to 4.8GB capacity
- 16MB system memory standard, expandable to 128MB
- Leading industry technology designed for optimum performance, upgrade capability, compatibility, and investment protection
- Pre-installed Easy Tools for extensive ease of use and management capability
- PCI bus slots for advanced capability
- Enhanced IDE for support of up to four devices
- Energy Star compliance
- Three-year limited warranty for IBM's quality, reliability, service, and support
- HelpCenter service and support (800/772-2227)

New Product Announcement: IBM PC 700 Series—PC 730 and PC 750
The PC 700 Series PC 730 (6877) and PC 750 (6887) significantly enhance the PC 700 family with faster processors, larger hard disk drives, faster memory, improved graphics, and solutions to help you manage your business. Solutions encompass LAN-ready models with Wake-on-LAN, data collaboration

models with Mwave, and high-performance graphics models. Other features include online and remote diagnostics, NetFinity LAN management software, vital product data, and Plug and Play provide solutions to help you effectively manage your networks and keep track of your assets. The PC 700 Series offers a consistent, compatible, and stable platform to help reduce the total cost of PC ownership.

Features
- Intel Pentium 100MHz/66MHz, 133MHz/66MHz, or 166MHz/66MHz processors (internal/external speeds)
- One 3.5-inch, 1.44MB diskette drive standard
- Advanced graphics with 2MB video RAM standard (EDO DRAM)
- Plug and Play capability
- PCI/Industry Standard Architecture (ISA) with three PCI slots
- Models with 6X CD-ROM
- External 256KB or 512KB L2 synchronous write-back cache standard Synchronous pipeline burst 256KB or 512KB Level 2 cache improves performance by keeping the most recently used data available for quick access. 100 and 133MHz models have 256KB L2 cache standard, 166MHz models are provided with 512KB L2 cache standard.
- Enhanced PCI Busmaster Local Bus IDE hard disk controller or high-speed PCI Busmaster SCSI-2 Advances in IDE controller design double the number of devices supported and increase the speed of operation by placing the devices on the PCI bus. Busmaster operation frees the processor for other tasks while transferring data. Two IDE connectors provide attachment for high-speed devices on one connector with standard devices on the other. For even more demanding environments, a high-speed SCSI adapter supports seven devices on the PCI bus.
- PCI Local Bus graphics controller or advanced PCI graphics adapter – 640 x 480, 800 x 600, 1024 x 768, 1280 x 1024, 1600 x 1200

– 85Hz refresh rate is supported in most resolutions.
– Hardware assisted video scaling, eliminates video playback degradation when the window is scaled to full screen.
– MPEG video playback software supporting up to 30 frames per second. A PCI-bus attached graphics controller provides exceptional graphics performance with a full range of graphics modes supported. An advanced graphics adapter, available on some models, provides even better performance. Both graphics controllers are DDC1 and DDC2B enabled, which allows the system to automatically setup an attached DDC-capable monitor in its optimum display mode.
- Mwave DSP Technology The Mwave Digital Signal Processor (DSP) on some models provides support for stereo audio, 28.8/14.4Kbps modem/fax, full-feature telephony (speaker phone, telephone answering machine, phone mail), and dial volume control.
- Enhanced Data Output (EDO) or Parity Memory Models are provided with either EDO or parity memory. EDO memory can reduce the time required to access information and improve performance. Parity memory is provided for those who demand greater reliability.
- LAN ready with Wake-on-LAN All systems are hardware enabled to the support Wake-on-LAN function. Some models are equipped with an Ethernet or token-ring LAN adapter that supports the Wake-on-LAN function. These systems can be powered on by a signal sent on the LAN.
- Infrared The system is enabled for infrared data/file transfer. With the addition of an optional infrared transceiver option, the system supports wireless data/file transfer with other infrared devices such as notebook computers, or infrared printers. Data/file transfer can occur at up to 1.2Mbps depending on the device and mode of operation.

- Advanced Power Management and System Asset Management The power management features lower the power consumption of the system when not in use. In addition, features are available to help manage the maintenance and security of the system.

The PC 300 and PC 700 systems provide leadership technology, advanced industrial design, and IBM quality, service, and support.

Leadership Technology
- Pentium processors
- PCI/ISA technology
- 256KB asynchronous L2 write-back cache on some models
- Enhanced local bus IDE hard disk controller
- Local bus graphics controller
- Advanced Power Management (APM) and system asset management

Advanced Industrial Design
- Choice of three-slot/three-bay or five-slot/five-bay design
- Vertical or horizontal orientation
- Quiet, cool operation
- Front access PCMCIA support (with optional PCMCIA expansion card) With an optional adapter, the PC 700 Series supports the ability to attach PCMCIA adapters through the front of the system. You can move storage devices from a portable computer and attach them to the desktop for transfer of data and programs.
- Lockable DASD The PC 730 and PC 750 systems have a sliding door on the front of the system. The door can be locked to secure diskette, CD-ROM, and PCMCIA devices (750 only).

Easy Tools
Easy Tools is a unique set of software tools designed to help you manage your desktop computing with ease and effectiveness. See the February issue of *ISD News & Views* for details on EasyTools.

IBM Quality, Service, and Support
- Limited three year warranty
- Compatible with most industry standard interfaces and devices

- HelpWare
  HelpWare is a comprehensive set of offerings designed to provide you with a full range of service and support options to help make your computing experience more productive and enjoyable. As part of our commitment to providing you with the support you demand, IBM provides many HelpWare services complimentary during the warranty period of your IBM PC, and additional services are available from the HelpWare Support Family.

Dell's Online Services

Contact Scott Mangum (800/274-7799 ext. 66226 or via the Internet at **scott_mangum@dell.com**) for more information.

Contract Management Liaison Can Best Answer Questions

As much as the Purchasing Bureau would like to answer all of your questions regarding term contracts, often the person most knowledgeable about a specific term contract is the Contract Management Liaison—not the Purchasing Contracts Officer. To determine the liaison, please look at the term contract in question. If no liaison is listed, then contact the Purchasing Bureau.

Commnet Cellular term contract

If you have questions about the Commnet Cellular term contract (406-W), please contact Les Smith (444-1203) from ISD.

MIS Services term contract

Questions related to the MIS Services term contract should be directed to Brett Boutin (444-0515, via ZIP!Mail, or via the Internet at **bboutin@mt.gov**) from ISD. ◪

Where To Go	What You'll Find	How To Get There
Dell's World Wide Web Site	Product information, in-depth technical information (including BIOS updates, video drivers, spare parts lists, trouble-shooting tips), corporate and financial, press releases, pricing and order status.	**http://www.dell.com**
Online support representative	A technical support representative to answer your support questions via E-Mail.	**support@dell.com**
Online sales representative	A sales representative to provide quotes and answers to your questions.	**sales@dell.com** You may also send an E-Mail directly to your sales representative by typing **first name_last name@dell.com**
Order status via Dell's web site	Get up-to-the-minute status on your Dell orders.	Access Dell's web site, then click on Order Assistant in the tool bar. Next, choose Order Status

For those without internet connectivity:

Order status via fax	A summary of orders placed within the last 30 days. This summary includes the status of each order from the time it is entered to the time it is shipped.	Set up an account with your sales representative, then call 800/376-3355. Enter your Dell customer number then your assigned password.
Order status via phone	Get up-to-the-minute status on each order in your faxed order summary.	Call 800/433-9014. Enter your Dell order number and then you will be prompted to enter your zip code.
TechConnect BBS	In-depth technical information, including BIOS updates, drivers and spare parts lists.	512/728-8528
TechFax Service	Technical documents including system specs and trouble-shooting tips.	800/950-1329 512/728-2000
AutoTech	Trouble-shooting assistance via an automated telephone system.	800/624-9896
DellWare Facts Line	24-hour service providing information on software and peripherals offered through the DellWare catalog.	512/728-1681

Figure 10: Dell's Online Services

Training Calendar

This schedule has been assembled by the Helena College of Technology of The University of Montana. If you have any questions about enrollment, please call 444-6821.

All classes will be held at the Helena College of Technology, Room 211, at 1115 N. Roberts, unless another location is specified. Please note that these costs are subject to change each July 1.

To enroll in a class, **you must send or deadhead an enrollment application** to the State Training Center, HCT, Helena, MT 59601. If you have questions about enrollment, please call 444-6821. *Once you enroll in a class, the full fee will be charged UNLESS you cancel at least three business days before the first day of class.* HCT is also willing to schedule specific classes by request from state agencies.

	DATES	COST	LENGTH
Data Base Classes			
Intro. To Oracle	April 8, 9, 10	255.00	3
Intro. To Oracle	June 3, 4, 5	255.00	3
Oracle Forms; Prereq. Intro. to Oracle	May 28, 29, 30	255.00	3
Oracle Forms; Prereq. Intro. to Oracle	June 10, 11, 12	255.00	3
Oracle End User Tools Prereq. Intro. to Windows	June 24	85.00	1
Oracle Reports; Prereq. Intro. to Oracle	June 25, 26, 27	255.00	3
Approach; Prereq. Intro. to Windows	April 22 or 29	85.00	1
Approach; Prereq. Intro. to Windows	May 7	85.00	1
Approach; Prereq. Intro. to Windows	June 13	85.00	1
Data Network/Mainframe Classes			
Introduction to Novell	May 14, 15	170.00	2
Microcomputer Classes			
CorelDraw; Prereq. Intro. to Windows	April 16	85.00	1
Introduction to Windows	April 11	85.00	1
Introduction to Windows	May 3	85.00	1
Introduction to Windows	June 3 or 4 or 5 or 6 or 7	85.00	1
Intermediate to Windows Prereq. Intro. to Windows	April 15, 16	85.00	1
Fundamentals of DOS	April 4	85.00	1
PC Memory Management	April 5	85.00	1
ZIP!Office	June 24 or 25 or 26 or 27	32.50	1/3
Word Processing Classes			
WordPerfect 6.1 for Windows Prereq. Intro to Windows	April 25, 26	170.00	2
WordPerfect 6.1 for Windows Prereq. Intro to Windows	May 16, 17	170.00	2
WordPerfect 6.1 Conv. Windows Prereq. Intro to Windows, WordPerfect	June 13	85.00	1
WordPerfect 6.1 Conv. Windows Prereq. Intro. to Windows, WordPerfect	April 17	85.00	1
WordPerfect 6.1 Tables Prereq. WordPerfect 6.1 for Windows	April 23	42.50	1/2
WordPerfect 6.1 Merge & Sort Prereq. WordPerfect 6.1 for Windows	April 24	42.50	1/2
WordPerfect 6.1 Macros Prereq. WordPerfect 6.1 for Windows	May 21	42.50	1/2
Desktop Publishing With WordPerfect 6.1	April 1, 2	170.00	2
Spreadsheet Classes			
Lotus for Windows	May 22, 23	170.00	2
Lotus Conversion for Windows	April 18	85.00	1
Lotus Conversion for Windows	June 20	85.00	1

Prerequisites may be met with consent of Instructor.

The Helena College of Technology makes reasonable accommodations for any known disability that may interfere with a person's ability to participate in training. Persons needing an accommodation must notify the College no later than two weeks before the date of training to allow adequate time to make needed arrangements. To make your request known, call 444-6821.

ISD Class Enrollment Application

COMPLETE THIS APPLICATION **IN FULL** AND RETURN
IT **AT LEAST ONE WEEK PRIOR** TO THE FIRST DAY OF CLASS

COURSE DATA

Course Requested: _____

Date Offered: _____

STUDENT DATA

Name: _____

Soc. Sec. Number (for P/P/P): _____

Agency **& Division**: _____ / _____

Mailing Address: _____

_____

Phone: _____

How have you met the required prerequisites for this course? Explain, giving the class(es) taken, tutorial(s) completed, and/or experience.

_____

_____

_____

BILLING INFORMATION/AUTHORIZATION **MANDATORY**

User ID: _ _ _ _ _ _   Agency #: _ _ _ _

Authorized Signature: _____

*FULL CLASS FEE WILL BE BILLED TO THE REGISTRANT UNLESS
CANCELLATION IS MADE THREE BUSINESS DAYS BEFORE
THE START DATE OF THE CLASS.*

**DEADHEAD COMPLETED FORM TO:
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HELENA COLLEGE OF TECHNOLOGY
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